S.Liu

●Re-run

RAW SEQUENCE LISTING   DATE: 09/17/2002
PATENT APPLICATION: US/09/697,863   TIME: 14:13:58

Input Set : N:\paola\US09697863A.RAW
Output Set: N:\CRF4\09172002\I697863.raw

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       1 <110> APPLICANT: Vlaams Interuniversitair Instituut Voor Biotechnologie VZW
       2 <120> TITLE OF INVENTION: CD-40 INTERACTING AND TRAF-INTERACTING PROTEINS
       3 <130> FILE REFERENCE: 2676-4555US
C-->   4 <140> CURRENT APPLICATION NUMBER: US/09/697,863
       5 <141> CURRENT FILING DATE: 2000-10-27
       6 <150> PRIOR APPLICATION NUMBER: PCT/EP99/03025
       7 <151> PRIOR FILING DATE: 1999-04-28
       8 <150> PRIOR APPLICATION NUMBER: EPO 98201392.2
       9 <151> PRIOR FILING DATE: 1998-04-29
      10 <160> NUMBER OF SEQ ID NOS: 6
      11 <170> SOFTWARE: PatentIn version 3.1
      13 <210> SEQ ID NO: 1
      14 <211> LENGTH: 1920
      15 <212> TYPE: DNA
      16 <213> ORGANISM: Homo sapiens
      17 <220> FEATURE:
      18 <221> NAME/KEY: misc_feature
      19 <222> LOCATION: (1627)..(1627)
      20 <223> OTHER INFORMATION: N stands for any nucleotide.
      21 <220> FEATURE:
      22 <221> NAME/KEY: CDS
      23 <222> LOCATION: (20)..(1108)
      24 <223> OTHER INFORMATION:
      25 <220> FEATURE:
      26 <221> NAME/KEY: misc_feature
      27 <222> LOCATION: (1849)..(1849)
      28 <223> OTHER INFORMATION: N stands for any nucleotide.
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      30       gtgcagaggc ggcaggaag atg gag ttg ggg agt tgc ctg gag ggc ggg agg      52
      31                          Met Glu Leu Gly Ser Cys Leu Glu Gly Gly Arg
      32                           1               5                  10
      33       gag gcg gcg gag gaa gag ggc gag cct gag gtg aaa aag cgg cga ctt     100
      34       Glu Ala Ala Glu Glu Glu Gly Glu Pro Glu Val Lys Lys Arg Arg Leu
      35                      15                  20                  25
      36       ctg tgt gtg gag ttt gcc tcg gtc gca agc tgc gat gcc gca gtg gct     148
      37       Leu Cys Val Glu Phe Ala Ser Val Ala Ser Cys Asp Ala Ala Val Ala
      38                      30                  35                  40
      39       cag tgc ttc ctg gcc gag aac gac tgg gag atg gaa agg gct ctg aac     196
      40       Gln Cys Phe Leu Ala Glu Asn Asp Trp Glu Met Glu Arg Ala Leu Asn
      41              45                  50                  55
      42       tcc tac ttc gag cct ccg gtg gag gag agc gcc ttg gaa cgc cga cct     244
      43       Ser Tyr Phe Glu Pro Pro Val Glu Glu Ser Ala Leu Glu Arg Arg Pro
      44       60                  65                  70                  75
```

ENTERED

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45    gaa acc atc tct gag ccc aag acc tat gtt gac cta acc aat gaa gaa      292
46    Glu Thr Ile Ser Glu Pro Lys Thr Tyr Val Asp Leu Thr Asn Glu Glu
47                    80                  85                  90
48    aca act gat tcc acc act tct aaa atc agc cca tct gaa gat act cag      340
49    Thr Thr Asp Ser Thr Thr Ser Lys Ile Ser Pro Ser Glu Asp Thr Gln
50                    95                 100                 105
51    caa gaa aat ggc agc atg ttc tct ctc att acc tgg aat att gat gga      388
52    Gln Glu Asn Gly Ser Met Phe Ser Leu Ile Thr Trp Asn Ile Asp Gly
53                   110                 115                 120
54    tta gat cta aac aat ctg tca gag agg gct cga ggg gtg tgt tcc tac      436
55    Leu Asp Leu Asn Asn Leu Ser Glu Arg Ala Arg Gly Val Cys Ser Tyr
56            125                 130                 135
57    tta gct ttg tac agc cca gat gtg ata ttt cta cag gaa gtt att ccc      484
58    Leu Ala Leu Tyr Ser Pro Asp Val Ile Phe Leu Gln Glu Val Ile Pro
59    140                 145                 150                 155
60    cca tat tat agc tac cta aag aag aga tca agt aat tat gag att att      532
61    Pro Tyr Tyr Ser Tyr Leu Lys Lys Arg Ser Ser Asn Tyr Glu Ile Ile
62                   160                 165                 170
63    aca ggt cat gaa gaa gga tat ttc aca gct ata atg ttg aag aaa tca      580
64    Thr Gly His Glu Glu Gly Tyr Phe Thr Ala Ile Met Leu Lys Lys Ser
65                   175                 180                 185
66    aga gtg aaa tta aaa agc caa gag att att cct ttt cca agt acc aaa      628
67    Arg Val Lys Leu Lys Ser Gln Glu Ile Ile Pro Phe Pro Ser Thr Lys
68                   190                 195                 200
69    atg atg aga aac ctt tta tgt gtg cat gtg aat gtg tca gga aat gag      676
70    Met Met Arg Asn Leu Leu Cys Val His Val Asn Val Ser Gly Asn Glu
71            205                 210                 215
72    ctt tgc ctt atg aca tcc cat ttg gag agc acc aga ggg cat gct gcg      724
73    Leu Cys Leu Met Thr Ser His Leu Glu Ser Thr Arg Gly His Ala Ala
74    220                 225                 230                 235
75    gaa cga atg aat cag tta aaa atg gtt tta aag aaa atg caa gag gct      772
76    Glu Arg Met Asn Gln Leu Lys Met Val Leu Lys Lys Met Gln Glu Ala
77                   240                 245                 250
78    cca gag tca gct aca gtt ata ttt gca gga gat aca aat cta agg gat      820
79    Pro Glu Ser Ala Thr Val Ile Phe Ala Gly Asp Thr Asn Leu Arg Asp
80                   255                 260                 265
81    cga gag gtt acc aga tgt ggt ggt tta ccc aac aac att gtg gat gtc      868
82    Arg Glu Val Thr Arg Cys Gly Gly Leu Pro Asn Asn Ile Val Asp Val
83                   270                 275                 280
84    tgg gag ttt ttg ggc aaa cct aaa cat tgc cag tat aca tgg gat aca      916
85    Trp Glu Phe Leu Gly Lys Pro Lys His Cys Gln Tyr Thr Trp Asp Thr
86            285                 290                 295
87    caa atg aac tct aat ctt gga ata act gct gct tgt aaa ctt cgt ttt      964
88    Gln Met Asn Ser Asn Leu Gly Ile Thr Ala Ala Cys Lys Leu Arg Phe
89    300                 305                 310                 315
90    gat cga ata ttt ttc aga gca gca gca gaa gag gga cac att att ccc     1012
91    Asp Arg Ile Phe Phe Arg Ala Ala Ala Glu Glu Gly His Ile Ile Pro
92                   320                 325                 330
93    cga agt ttg gac ctt ctt gga tta gaa aaa ctg gac tgt ggt aga ttt     1060
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RAW SEQUENCE LISTING   DATE: 09/17/2002
PATENT APPLICATION: US/09/697,863   TIME: 14:13:58

      Input Set : N:\paola\US09697863A.RAW
      Output Set: N:\CRF4\09172002\I697863.raw

```
        94      Arg Ser Leu Asp Leu Leu Gly Leu Glu Lys Leu Asp Cys Gly Arg Phe
        95                  335                 340                 345
        96      cct agt gat cac tgg ggt ctt ctg tgc aac tta gat ata ata ttg taa      1108
        97      Pro Ser Asp His Trp Gly Leu Leu Cys Asn Leu Asp Ile Ile Leu
        98                  350                 355                 360
        99      aatgctttt c aagtgtgggt tttgccctga ttgttgcaaa tacaatttcc accttctgga   1168
       100       aaggtaggtt tgctgtggag gaaataatgt actagatcat tgtcacagaa aaaccaacta   1228
       101       tgatttatgg ttgtgttttc agaattcaac attaaagatt aatgtttatt taaacgaaca   1288
       102       cattcctgca ttcaggatgt gaggccattt aataaaaagg gcacaaagcc tgtcagagtt   1348
       103       ttcaacggtg cttacagctg ccagctggat tccaaacagg taccccattg tctctgagct   1408
       104       aatgtttata tttttccatt caggcaccga aatagttaat atttaaaata agtcttcaaa   1468
       105       agaaaacata agagattatt gagttcttgg gactggatcc tttatttcat aagttcagat   1528
       106       catcttaaat gaaaatgcca tgattatctg cagttaagta gatgacagct attctacatc   1588
W--> 107       agacttgatt tttgtcagct aattacataa ttggtaagnt ataattgaaa ccttatggct   1648
       108       taaaattcct taactccttt ttgattcatg tttgtagtca tgttgtcaac agaggcaaag   1708
       109       ttaagcttga tgatggttaa aatcggtttg atagcaccat gggacatttt tttaacaaaa   1768
       110       ataaatgcat gaagagacat agcctttttag ttttgctaat tgtgaaatgg aaatgcttta   1828
W--> 111       caggaagtaa atgcaaatta nttttaagtg tgctttaaag aaaaatattt tccccacagg   1888
       112       agaaatttaa ataaagaatt ttatttggta aa                                 1920
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114 <210> SEQ ID NO: 2
115 <211> LENGTH: 362
116 <212> TYPE: PRT
117 <213> ORGANISM: Homo sapiens
118 <400> SEQUENCE: 2

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       119      Met Glu Leu Gly Ser Cys Leu Glu Gly Gly Arg Glu Ala Ala Glu Glu
       120      1               5                   10                  15
       121      Glu Gly Glu Pro Glu Val Lys Lys Arg Arg Leu Leu Cys Val Glu Phe
       122                  20                  25                  30
       123      Ala Ser Val Ala Ser Cys Asp Ala Ala Val Ala Gln Cys Phe Leu Ala
       124                  35                  40                  45
       125      Glu Asn Asp Trp Glu Met Glu Arg Ala Leu Asn Ser Tyr Phe Glu Pro
       126                  50                  55                  60
       127      Pro Val Glu Glu Ser Ala Leu Glu Arg Arg Pro Glu Thr Ile Ser Glu
       128      65                  70                  75                  80
       129      Pro Lys Thr Tyr Val Asp Leu Thr Asn Glu Glu Thr Thr Asp Ser Thr
       130                  85                  90                  95
       131      Thr Ser Lys Ile Ser Pro Ser Glu Asp Thr Gln Gln Glu Asn Gly Ser
       132                  100                 105                 110
       133      Met Phe Ser Leu Ile Thr Trp Asn Ile Asp Gly Leu Asp Leu Asn Asn
       134                  115                 120                 125
       135      Leu Ser Glu Arg Ala Arg Gly Val Cys Ser Tyr Leu Ala Leu Tyr Ser
       136                  130                 135                 140
       137      Pro Asp Val Ile Phe Leu Gln Glu Val Ile Pro Pro Tyr Tyr Ser Tyr
       138      145                 150                 155                 160
       139      Leu Lys Lys Arg Ser Ser Asn Tyr Glu Ile Ile Thr Gly His Glu Glu
       140                  165                 170                 175
       141      Gly Tyr Phe Thr Ala Ile Met Leu Lys Lys Ser Arg Val Lys Leu Lys
       142                  180                 185                 190
       143      Ser Gln Glu Ile Ile Pro Phe Pro Ser Thr Lys Met Met Arg Asn Leu
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RAW SEQUENCE LISTING   DATE: 09/17/2002
PATENT APPLICATION: US/09/697,863   TIME: 14:13:58

Input Set : N:\paola\US09697863A.RAW
Output Set: N:\CRF4\09172002\I697863.raw

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144                 195                 200                 205
145     Leu Cys Val His Val Asn Val Ser Gly Asn Glu Leu Cys Leu Met Thr
146         210                 215                 220
147     Ser His Leu Glu Ser Thr Arg Gly His Ala Ala Glu Arg Met Asn Gln
148     225                 230                 235                 240
149     Leu Lys Met Val Leu Lys Lys Met Gln Glu Ala Pro Glu Ser Ala Thr
150                 245                 250                 255
151     Val Ile Phe Ala Gly Asp Thr Asn Leu Arg Asp Arg Glu Val Thr Arg
152                 260                 265                 270
153     Cys Gly Gly Leu Pro Asn Asn Ile Val Asp Val Trp Glu Phe Leu Gly
154             275                 280                 285
155     Lys Pro Lys His Cys Gln Tyr Thr Trp Asp Thr Gln Met Asn Ser Asn
156         290                 295                 300
157     Leu Gly Ile Thr Ala Ala Cys Lys Leu Arg Phe Asp Arg Ile Phe Phe
158     305                 310                 315                 320
159     Arg Ala Ala Ala Glu Glu Gly His Ile Ile Pro Arg Ser Leu Asp Leu
160                 325                 330                 335
161     Leu Gly Leu Glu Lys Leu Asp Cys Gly Arg Phe Pro Ser Asp His Trp
162                 340                 345                 350
163     Gly Leu Leu Cys Asn Leu Asp Ile Ile Leu
164                 355                 360
166 <210> SEQ ID NO: 3
167 <211> LENGTH: 1312
168 <212> TYPE: DNA
169 <213> ORGANISM: Mus musculus
170 <220> FEATURE:
171 <221> NAME/KEY: CDS
172 <222> LOCATION: (122)..(1234)
173 <223> OTHER INFORMATION:
174 <400> SEQUENCE: 3
175     agctattaat gattcgaatt tatacgactc actataggga atttggccct cgaggccaag      60
176     aattcggcac gagggcggga agcagcgtga agagcgggtg ttttgagggg accctgcggc     120
177     g atg gcg tct ggc agc agt tcc gat gcg gcg gag ccc gca ggg ccg gca     169
178       Met Ala Ser Gly Ser Ser Ser Asp Ala Ala Glu Pro Ala Gly Pro Ala
179       1               5                   10                  15
180     ggg cgg gcg gcg tcg gcg ccc gaa gca gca cag gcg gag gag gac cgg     217
181     Gly Arg Ala Ala Ser Ala Pro Glu Ala Ala Gln Ala Glu Glu Asp Arg
182                 20                  25                  30
183     gtg aag agg cgg cgg ctt cag tgc ctg ggc ttt gcg ttg gtg ggg gga     265
184     Val Lys Arg Arg Arg Leu Gln Cys Leu Gly Phe Ala Leu Val Gly Gly
185                 35                  40                  45
186     tgc gac ccc acg atg gtc ccc agc gtc ctg cgg gag aac gac tgg cag     313
187     Cys Asp Pro Thr Met Val Pro Ser Val Leu Arg Glu Asn Asp Trp Gln
188         50                  55                  60
189     acg cag aaa gcc ctg agc gcc tac ttc gag ctg cca gag aac gac caa     361
190     Thr Gln Lys Ala Leu Ser Ala Tyr Phe Glu Leu Pro Glu Asn Asp Gln
191     65                  70                  75                  80
192     ggg tgg ccg cgc cag cct ccc acg tcc ttc aag tcc gag gcc tat gtt     409
193     Gly Trp Pro Arg Gln Pro Pro Thr Ser Phe Lys Ser Glu Ala Tyr Val
```

```
                RAW SEQUENCE LISTING             DATE: 09/17/2002
                PATENT APPLICATION:  US/09/697,863   TIME: 14:13:58

                Input Set : N:\paola\US09697863A.RAW
                Output Set: N:\CRF4\09172002\I697863.raw
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194                         85                    90                    95
195    gat cta acc aac gag gat gca aat gat aca acc att tta gaa gcc agt    457
196    Asp Leu Thr Asn Glu Asp Ala Asn Asp Thr Thr Ile Leu Glu Ala Ser
197                        100                   105                   110
198    cca tct gga act cct cta gaa gat agc agc act att tct ttc att acc    505
199    Pro Ser Gly Thr Pro Leu Glu Asp Ser Ser Thr Ile Ser Phe Ile Thr
200                        115                   120                   125
201    tgg aat att gat gga tta gat gga tgc aat ctg ccc gag agg gct cga    553
202    Trp Asn Ile Asp Gly Leu Asp Gly Cys Asn Leu Pro Glu Arg Ala Arg
203                        130                   135                   140
204    ggg gtg tgt tcc tgc cta gct ttg tat agt cca gat gtg gta ttt cta    601
205    Gly Val Cys Ser Cys Leu Ala Leu Tyr Ser Pro Asp Val Val Phe Leu
206                        145                   150                   155                   160
207    cag gaa gtt atc ccc cca tac tgt gcc tac cta aag aag aga gca gcc    649
208    Gln Glu Val Ile Pro Pro Tyr Cys Ala Tyr Leu Lys Lys Arg Ala Ala
209                        165                   170                   175
210    agt tac aca att att aca ggt aat gaa gaa gga tat ttc aca gct ata    697
211    Ser Tyr Thr Ile Ile Thr Gly Asn Glu Glu Gly Tyr Phe Thr Ala Ile
212                        180                   185                   190
213    cta ttg aag aaa gga aga gtg aaa ttt aaa agt cag gag att att cct    745
214    Leu Leu Lys Lys Gly Arg Val Lys Phe Lys Ser Gln Glu Ile Ile Pro
215                        195                   200                   205
216    ttt cca aat acc aaa atg atg aga aac ctg cta tgc gta aat gtg agt    793
217    Phe Pro Asn Thr Lys Met Met Arg Asn Leu Leu Cys Val Asn Val Ser
218                        210                   215                   220
219    ttg ggt gga aat gaa ttt tgc ctt atg aca tcc cat ttg gag agc acc    841
220    Leu Gly Gly Asn Glu Phe Cys Leu Met Thr Ser His Leu Glu Ser Thr
221    225                     230                   235                   240
222    aga gaa cat tct gcg gaa cga ata aga caa tta aaa act gtt ctt gga    889
223    Arg Glu His Ser Ala Glu Arg Ile Arg Gln Leu Lys Thr Val Leu Gly
224                        245                   250                   255
225    aaa atg caa gag gct cca gat tca acc acg gtt ata ttt gca gga gat    937
226    Lys Met Gln Glu Ala Pro Asp Ser Thr Thr Val Ile Phe Ala Gly Asp
227                        260                   265                   270
228    aca aat tta aga gat caa gaa gtt atc aaa tgt ggt ggt tta cct gac    985
229    Thr Asn Leu Arg Asp Gln Glu Val Ile Lys Cys Gly Gly Leu Pro Asp
230                        275                   280                   285
231    aac gtt ttt gat gcc tgg gaa ttt tta ggc aaa cct aaa cat tgc cag    1033
232    Asn Val Phe Asp Ala Trp Glu Phe Leu Gly Lys Pro Lys His Cys Gln
233                        290                   295                   300
234    tat aca tgg gat acg aaa gca aat aac aac ctc agg atc cct gct gct    1081
235    Tyr Thr Trp Asp Thr Lys Ala Asn Asn Asn Leu Arg Ile Pro Ala Ala
236    305                     310                   315                   320
237    tat aag cat cgt ttt gat cga ata ttt ttc aga gca gaa gag ggg cac    1129
238    Tyr Lys His Arg Phe Asp Arg Ile Phe Phe Arg Ala Glu Glu Gly His
239                        325                   330                   335
240    ctt att cct caa agt tta gac ctt gtt ggg ttg gaa aaa ctg gac tgt    1177
241    Leu Ile Pro Gln Ser Leu Asp Leu Val Gly Leu Glu Lys Leu Asp Cys
242                        340                   345                   350
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 09/17/2002
PATENT APPLICATION: US/09/697,863   TIME: 14:13:59

Input Set : N:\paola\US09697863A.RAW
Output Set: N:\CRF4\09172002\I697863.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 1627,1849
Seq#:5; N Pos. 1392,1530,1531
Seq#:5; Xaa Pos. 395,441
Seq#:6; Xaa Pos. 395,441

Invalid Line Length:
The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:6; Line(s) 419

VERIFICATION SUMMARY   DATE: 09/17/2002
PATENT APPLICATION: US/09/697,863   TIME: 14:13:59

Input Set : N:\paola\US09697863A.RAW
Output Set: N:\CRF4\09172002\I697863.raw

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L:4   M:270 C: Current Application Number differs, Wrong Format
L:107 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:1588
L:111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:1828
L:400 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:1384
L:401 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:1432
L:409 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:1528
L:410 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:1536
L:476 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:384
L:482 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:432
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